# A REVIEW OF THE ORYSSOMINI, A NEW TRIBE OF NEOTROPICAL COCCINELLIDAE (COLEOPTERA)

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#### ABSTRACT

The genus Oryssomus Mulsant is removed from the Cranophorini and established as the type-genus of a **new tribe**, Oryssomini. Oryssomus lineatus, n. sp., Pseudoryssomus, n. gen., P. formosus, n. sp., P. pumilus, n. sp., and P. brevipilosus, n. sp., are described. Oryssomus melzeri Korschefsky is transferred to Eupalea Mulsant.

Mulsant (1850) described the genera Oryssomus and Cranophorus, placing them together in his "branch" Cranophoraires. Chapuis (1876), placed the same 2 genera in his Group VIII, "Cranophorites". Broun (1886) described the genus Holopsis (New Zealand), stating that it belonged to the Cranophorites and should be placed between Oryssomus and Cranophorus. Weise (1895) described the genus Cassiculus (New Zealand) for Cranophorus venustus Pascoe, stating that it belonged near Cranophorus. Casey (1899) erected the Cranophorini for the genera Nipus Casey (North America), tribe Cranophorus (African), and Oryssomus (Neotropical). Bréthes described the genera Cranoryssus (Chile, 1923) and Orynipus (Chile, 1925), placing them in the Cranophorini. All of the above genera were included in the Cranophorini by Korschefsky (1931) as well as the genus Cleidostethus Arrow. Blackwelder (1945) listed the Neotropical genera (Cranoryssus, Orynipus and Oryssomus) as belonging to the Cranophorini. The genus Holopsis Broun was removed from the Coccinellidae and placed in the Corylophidae by Matthews (1899) but it was unaccountably included again in the Coccinellidae by Korschefsky (1931). Crowson (1955) again stated that Holopsis belonged in the Corylophidae. The genus Nipus was removed from the Cranophorini and placed in the Sticholotini by Gordon (1970). The remaining genera are a heterogenous assemblage of mostly unrelated elements which have been placed together only because they have the head concealed by the pronotum. Examination of antennae, mouthparts, and genitalia indicates that Oryssomus should be removed from the Cranophorini. The affinities of Oryssomus are with the Exoplectrini and Noviini and Oryssomus is here considered to form the type-genus of a new tribe, Oryssomini, to be placed near the Exoplectrini. Of the genera still remaining in the Cranophorini, it is likely that only the type-genus, Cranophorus, can be retained in that tribe. The remaining genera will probably have to be assigned to other existing tribes or placed in new tribes.

The habitus views presented here were prepared by Miss Kate Conway, the line drawings by Miss Linda Heath.

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#### Oryssomini Gordon, new tribe

Form elongate; lateral margin of elytron and pronotum discontinuous. Dorsal surface pubescent. Pronotum completely covering head, anterior border rounded, not emarginate or truncate (Fig. 1). Head with anterior clypeal margin broadly, feebly emarginate, lateral angle bluntly rounded; antenna 10-segmented, inserted immediately before eye, basal segment greatly enlarged, club large, 3-segmented, inner margin of all club segments strongly produced (Fig. 6); terminal segment of maxillary palpus large, strongly securiform (Fig. 7); mandible with 2 strong apical teeth and 1 large, basal tooth (Fig. 8). Epipleuron flat, not notched for reception of femoral apices. Legs with tibiae simple or angulate externally (Figs. 9, 10); tarsus trimerus; tarsal claw strongly bifid. Abdomen with 5 visible sterna; postcoxal line complete as in Pullus or incomplete as in Scymnus (Fig. 11, 12); abdominal punctures (at least on first sternum) large, flat-bottomed, shallow (Fig. 11). Male genitalia simple, symmetrical; trabes usually as long as or longer than phallobase (Fig. 16); sipho not strongly curved anterior to base, usually with median loop, apex nearly membranous, unmodified (Fig. 18). Female genitalia: spermatheca stout, bent, ramus present, nodulus well developed, cornu large, accessory gland small; infundibulum absent; bursa a long, simple sac; genital plates triangular, elongate or not, styli present (Fig. 14, 15).

The head with emarginate clypeal margin, large, securiform maxillary palpus and large, robust antenna is of the type possessed by the Exoplectrini. The postcoxal line of the *Pullus* or *Scymnus* type and flattened, unnotched epipleuron are similar to the same structures in the Noviini. The tribe Oryssomini is apparently not closely related to any other group of genera and is provisionally placed near the Exoplectrini in the present classification.

The occurrence of both modified and unmodified tibiae in a group of otherwise similar genera is unusual but a parallel situation exists in the Exoplectrini where *Chnoodes* has simple tibiae and *Exoplectra* has the tibiae angulate externally.

#### Key to genera of Oryssomini

Tibia slender, unmodified (Fig. 9)..... Oryssomus Mulsant

#### Oryssomus Mulsant

Oryssomus Mulsant, 1850:939; Crotch, 1874:292; Chapuis, 1876:217-218; Gorham, 1895:210. Casey, 1899:132. Korschefsky, 1931:176. Blackwelder, 1945:446. Type-species, Oryssomus terminatus Mulsant, monobasic.

Oryssomini with all tibiae simple, unmodified (Fig. 9). Postcoxal line complete. Female genitalia with genital plate not elongate, somewhat triangular (Fig. 14); spermatheca simple, curved, without nodulus (Fig. 14).









Fig. 1-5; habitus views: 1) O. subterminatus; 2) O. lineatus; 3) P. formosus; 4) P. pumilus; 5) P. brevipilosus.

Korschefsky (1935) described Oryssomus melzeri from Brasil. It is obvious from his figure on page 254 that this cannot be a member of Oryssomus. Examination of the Korschefsky collection in the USNM revealed that he had placed his paratype of *melzeri* under the genus *Eupalea* where it belongs. He apparently did not correct his error in the literature, but O. melzeri does belong in Eupalea and is a junior synonym of E. suffriani Mulsant (New SYNONYMY). With melzeri removed, there remain 2 described species in Oryssomus, subterminatus Mulsant (Colombia and Central America) and deyrollei Crotch (Brasil), and a third species is described below. There are 3 specimens of O. subterminatus in the Crotch Collection, University Museum, Cambridge, England, the first of these bearing the following labels is here designated lectotype: "Type, subterminatus Reiche/Type [blue paper]/ 836 FCC-1181". The head and abdomen are missing from the specimen. There are 2 specimens representing 2 different species under the name Oryssomus devrollei Crotch in the Crotch Collection. The first of these, bearing the following labels, is here considered to be the holotype: "Type [blue paper]/ Type, Deyrolli, Bras,/831, FCC-1176". The abdomen is missing from the holotype. The second specimen is probably not type material as it does not match Crotch's description at all and is tentatively determined to be Cranoryssus germaini (Crotch).

#### Key to species of Oryssomus

1.	Pronotum usually with an elongate, median, black spot ex- tending from base nearly to apex; elytron black with large, red spot on apical third (Fig. 1)subterminatus Mulsant
1′.	Dorsal color pattern not as described above2
2.	Elytron black with external margin entirely orange deyrollei Crotch
2'.	Elytron black, with external margin black, humeral area and diagonal stripe red (Fig. 2) <i>lineatus</i> , n. sp.

#### Oryssomus lineatus Gordon, **new species** (Fig. 2, 16-18)

*Holotype male:* Length 4.32 mm, greatest width 3.00 mm. Form elongate, robust, widest posterior to middle of elytra, outline of pronotum and elytron strongly discontinuous. Ventral surface and head entirely brownish red; pronotum black except apical five-eighths yellow, yellow area nearly divided medially by apical extension of black area (Fig. 2); elytron black except humeral area broadly red, red area extending posteriorly in a broad, diagonal stripe to apical third of elytron (Fig. 2). Pronotum shining; punctures fine, separated by less than to twice their diameter; pubescence grayish white. Elytron shining; pubescence grayish white except reddish brown on black sutural stripe, mostly appressed but with some long, erect hairs. Abdomen densely punctured, becoming more so along lateral margin of all sterna and on apical 3 sterna; postcoxal line complete, evenly rounded, extending slightly beyond middle of first sternum. Genitalia simple; basal lobe equal in length to paramere, tapered from base to pointed apex, apex slightly bent downward in lateral view (Fig. 16, 17); sipho only slightly curved above basal piece, with 1

complete loop anterior to middle, apex almost membranous, unmodified (Fig. 18).

Female: Similar to male in all external aspects.

VARIATION: Length 3.72 to 4.70 mm, greatest width 2.68 to 3.21 mm. The width of the red stripe on the elytron may be slightly wider or narrower than on the holotype.

HOLOTYPE: Male, USNM type no. 72831, from BOLIVIA, Santa Cruz, Oct. 1954, G. Pinckert.

PARATYPES: Total 19, from TRINIDAD, summer 1958, R. R. Bideshi, in USNM and CNC collections.

As indicated in the key, color pattern alone is sufficient to distinguish *lineatus* from *subterminatus* or *deyrollei*. In addition, the male genitalia of *lineatus* are proportionately larger than those of *subterminatus*, and the basal lobe is tapered from base to apex in *lineatus*, almost parallel sided in basal three-fourths in *subterminatus*.

The holotype of *lineatus* is from Bolivia, and all of the paratypes from Trinidad. There is no doubt that the specimen from Bolivia is correctly labeled, and so, while I have no reason to suspect that the Trinidad specimens are incorrectly labeled, the Bolivian specimen has been selected as the holotype.

# Pseudoryssomus Gordon, new genus

Oryssomini with all tibiae expanded, flattened, angulate on external margin near base (Fig. 10). Postcoxal line complete or incomplete (Fig. 12, 13). Female genitalia with genital plate elongate (Fig. 15); spermatheca simple, curved, with well-developed nodulus (Fig. 15).

The only apparent differences between Oryssomus and Pseudoryssomus are in the legs and female genitalia as indicated above. The legs are exactly of the type found in the genus Exoplectra. It is somewhat unusual in the Coccinellidae to have more than 1 type of postcoxal line in the same genus. P. formosus has the postcoxal line definitely incomplete as in Scymnus (Fig. 12) and the other 2 species have it complete as in Pullus (Fig. 13). I've not been able to detect any differences other than the postcoxal line and so have placed all 3 species in the same genus. Type-species, Pseudoryssomus formosus, new species.

#### Key to species of Pseudoryssomus

1.	Length more than 4.00 mm.; elytron black with distinct, red lateral border (Fig. 3), postcoxal line incomplete (Fig. 12)
1′.	Length less than 3.75 mm.; color of elytron not as described above. Postcoxal line complete (Fig. 13)2
2.	Pubescence on elytron long with many erect hairs; Panama.
2′.	Pubescence on elytron short, no erect hairs visible; Vene- zuela

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Fig. 6-14. 6) O. subterminatus, antenna; 7) O. subterminatus, maxillary palp; 8) O. subterminatus, mandible; 9) O. subterminatus, proleg; 10) P. formosus, proleg; 11) O. subterminatus, first abdominal sternum; 12) P. formosus, first abdominal sternum; 13) P. brevipilosus, first abdominal sternum; 14) O. subterminatus, female genitalia.

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## Pseudoryssomus formosus Gordon, new species (Fig. 3, 12, 15, 19-21)

Holotype male: Length 4.66 mm, width 3.77 mm. Form elongate, robust, widest at middle of elytra, outline of pronotum and elytron discontinuous. Ventral surface and head entirely yellowish red; pronotum red except oval, translucent, yellow area on each side of middle at apex, small, irregular black spot at base anterior to scutellum (Fig. 3); elytron black with a broad, red lateral border, lateral border slightly narrowed medially, strongly narrowed at apex, an obscure, narrow, dark-red sutural area on disc (Fig. 3). Pronotum shining, finely, densely punctured, punctures separated by less than to twice their diameter; pubescence a mixture of erect and appressed yellowish-white hairs. Elytron shining, punctures coarser than on pronotum, separated by less than to twice their diameter; pubescence a mixture of appressed, white hairs and erect yellowish-white hairs. Abdomen densely punctured, becoming more so along lateral margin of all sterna and on apical 3 sterna; postcoxal line widely incomplete, as in Scymnus (Fig. 12), extending beyond middle of first sternum. Genitalia simple; basal lobe slightly longer than paramere, lateral margin thickened and abruptly widened in apical half, apex bluntly pointed; paramere slightly curved in lateral view, nearly parallel-sided (Fig. 19, 20); sipho with 1 complete loop at middle, apex nearly membranous, unmodified (Fig. 21).

*Female:* Similar to male in all external aspects; concealed 6th sternum with apical margin slightly sinuate on each side of middle; apex of spermatheca tapered to blunt point (Fig. 15).

VARIATION: Length 4.25 to 5.38 mm, width 3.08 to 4.00 mm. Two of the specimens in the type series are somewhat teneral, the areas that are normally red being yellow.

HOLOTYPE: Male, USNM type no. 72832, from Costa Rica, Turrialba, 1946, R. Perez A.

PARATYPES: Total 7, in USNM and CNC collections, 4 with same data as holotype; 2 from Costa Rica, Turrialba, 5-VI-1951, O. L. Cartwright; 1 from GUATEMALA, Alta V. Paz, Cacao Trece Aguas, 23-4.

The color pattern, including the shape of the basal black spot on the pronotum, is completely uniform in the type series. There may be a tendency for the median black area of the elytron to extend outward toward the lateral margin, particularly if *formosa* should prove to be widespread in Central America and southern Mexico.

#### Pseudoryssomus pumilus Gordon, new species (Fig. 4, 22)

Holotype female: Length 3.58 mm, greatest width 2.52 mm. Form elongate, widest at middle of elytra, outline of pronotum and elytron strongly discontinuous. Ventral surface and head entirely brownish yellow; pronotum reddish yellow except anterior border pale yellow, translucent, a large, oval, black spot present on posterior margin anterior to scutellum (Fig. 4); elytron black with 2 large, reddish-yellow, lateral spots narrowly connected along suture (Fig. 4). Pronotum shining, extremely finely, densely punctured, punctures separated by 1 to 2 times their diameter; pubescence mostly appressed with some erect hairs, yellowish white. Elytron shining, punctures fine, coarser



Fig. 15-23, genitalia: 15) *P. formosa*, female genitalia; 16-18) *O. lineatus*, male genitalia; 19-21) *P. formosa*, male genitalia; 22) *P. pumilus*, spermathecal capsule; 23) *P. brevipilosus*, spermathecal capsule.

than on pronotum, separated by less than to twice their diameter; pubescence appressed or semi-erect, yellowish white. Abdomen with punctures fine, sparse at middle of first and second sterna, dense and coarser elsewhere; postcoxal line complete, as in *Pullus*, extending slightly beyond middle of first sternum; 6th sternum entire, rounded on apical margin. Genitalia with apex of spermatheca enlarged, bulbous (Fig. 22).

Male: Not known.

HOLOTYPE: Female, USNM type no. 72833, from PANAMA, Barro Colorado Isl., 1-9-V-1964, W. D. and S. S. Duckworth.

Another female specimen from Barro Colorado in the USNM collection is probably conspecific. It is not regarded as a paratype because it is at variance with the type in the style of pubescence and type of postcoxal line. The small size, rounded 6th sternum, and bulbous spermathecal apex separate *pumilus* from *formosus* which is much larger, has the apical border of the 6th sternum sinuate on each side of the middle and has the spermathecal apex slender and pointed.

#### Pseudoryssomus brevipilosus Gordon, new species (Fig. 5, 13, 23)

Holotype female: Length 3.45 mm, greatest width 2.60 mm. Form elongate, widest across center of elytra, outline of pronotum and elytra strongly discontinuous. Ventral surface and head brownish red; pronotum red except parabolic basal spot dark brown; elytron with lateral half red, median half dark brown, outer border of brown area irregular, projecting laterally at middle, an elongate sutural area obscurely paler, dark red (Fig. 5). Pronotum shining, finely densely punctured, punctures separated by less than to 3 times their diameter; pubescence extremely short, appressed, yellowish white. Elytron shining, punctures slightly coarser than on pronotum, separated by less than to twice their diameter; pubescence short, a mixture of appressed and semierect hairs. Abdomen densely, evenly punctured, punctures coarser on basal sterna, becoming finer on apical sterna; postcoxal line complete (Fig. 13), extending well beyond middle of first sternum. Genitalia with apex of spermatheca broadly rounded, apical fourth slightly bulbous (Fig. 23).

Male: Not known.

HOLOTYPE: Female, USNM, type no. 72834, from VENEZUELA, Exp. Territ. Amazonas, Mt. Marahuaca, N. Slopes, Benitez Camp, 1-25-V-1950.

The short dorsal pubescence which has no erect hairs will separate *brevipilosus* from *pumilus* which has long pubescence with some distinctly erect hairs. The spermatheca is relatively slender and elongate in *brevipilosus*, short and robust in *pumilus*.

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